FESSENDEN'S

SILK MANUAL

AND

PRACTICAL FARMER.

Devoted to the Culture of Silk, Agriculture, and Rural Economy.

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BOSTON, MAY, 1836.

(From the Connecticut Courant.)

THE CONNECTICUT SILK FACTORY.

So great is the interest at the present time to our country in the culture and manufacture of Silk, that almost any thing relating to the subject is sure to attract attention. We doubt not therefore that the following Report will be highly acceptable to our readers. It will be gratifying to the public to learn, that the encouragement afforded by the Legislature to this important department of industry, has been attended with such beneficial results, and to our citizens especially it must be a source of pride and satisfaction, that so useful and well regulated an establishment as that described in the Report, is located in our city.

The Committee appointed by the "*Hartford County Silk Society,*" to examine into the present condition and progress of "the Connecticut Silk Manufacturing Company," have attended to the duty of said appointment, and submit the following Report.

On going into the Establishment of said Company, the Committee could not avoid expressing their satisfaction at the good order, neatness, and comfort which every where appeared among its inmates. The weaving room contains about 100 looms, about 60 of which were occupied by neat, industrious looking young ladies apparently from 12 to 20 years of age, and while their labor, that of weaving a fabric from two to four inches wide, appeared exceedingly light and pleasant, there was a general contentment, and satisfaction exhibited in their countenances, or by the singing of some sprightly air.

The charter of the Silk Company provides that the said Company shall instruct one person to be named by each of the County Silk Societies, in the art and mystery of reeling silk without expense. But the Committee learned with great satisfaction that the President of the Manufacturing Company, Mr Colt, the present director of the establishment, is willing to instruct every one who offers, not only gratuitously, but will pay them a reasonable compensation for their services, to the number of two hundred, at least. It is understood that all applicants shall bring evidence of fair moral character, and that their ages shall not be under 15, nor over 40 years.

As the process of reeling the silk from the cocoons is performed only during the summer, those who apply for instruction in this part of the manufacture only, must of course come at that season of the year. But those who remain through the winter will also be instructed in the art of weaving Tuscan Straw, and a variety of other fancy articles.

With respect to the time, and labor required to learn the various arts carried on in the establishment, the Committee saw two young ladies who had been only a day or two at work, and were surprised at the facility with which they produced the finest fabrics.

The prices paid per yard for the fabrics depend upon the ease, or difficulty with which they are produced, so that with equal industry there is but little difference in their earnings. On inspecting the day book, the Committee found that 50 cents per day is nearly the average sums paid those who had been in the Factory for a few weeks.

It is the wish and desire of the Silk Company that the farmers should raise the silk, their daughters reel it, and sell it in the raw state to the manufactures. After the art of reeling has been acquired, the Committee see no difficulty in this arrangement, since the reel is a very simple and cheap instrument, and may be had of the Company at five dollars each, and requires no more room or skill to keep it in order than the common household reel, so universally in use.

The Committee would therefore recommend that every farmer who raises only a few bushels

of socoons should have them reeled in his own house. This will be found by far the most profitable method, since the difference of price between the cocoons and the reeled silk will much more than pay for the reeling. This difference is so considerable, that even when the farmer raises only a few pounds of silk, the expenses of a reel would every year be saved by having the reeling done in his family.

The chief business of the Silk Company at the present time is the manufacture of Tuscan Straw into fabrics for hats and bonnets; and the Committee were particularly interested in some estimates which the President of the Company had made on this manufacture in a national point of view. If we suppose there are three millions of females in the United States, who purchase each a Tuscan hat annually, at the price of two dollars, then the cost of this single article to the country will amount to 6 millions per year. Taking the last three or four years as examples, it is thought that this estimate is not far from the truth, for it is known that there are upwards of 6 millions of females in our country and we think that common observation is sufficient to show that in the Atlantic States at least, one half of them have worn Tuscan hats within the last year or two, and judging from the known contagious nature of female fashions, we may fairly conclude that a similar estimate may be made with respect to the interior States. But since it takes two or three years for a fashion to pass from one end of our country to the other, it may be objected that our estimate is too high, as not all the females who wear Tuscan hats purchase them in the same year. But it must be remembered that two dollars is probably behind the average price of the article in question, and that the more common price has been from five to ten dollars. It must also be remembered that our estimate with respect to the number of females who wear Tuscan hats is probably much below the truth, so that we believe our estimate cannot be far out of the way.

Now taking for data certain facts presented by the Silk Company, the committee are warranted in believing, that the three millions of dollars expended for the article in question, may all be produced by the females in this country.

In behalf of the Committee,

J. L. COMSTOCK.

The depth of water in some of the great lakes in the West, is represented by travellers as being very great. There are ports of Lake Superior, as well as Huron and Michigan, where the depth of the water is 150 fathoms. The deepest water in Lake Erie is about thirty five fathoms. In Lake St Clair, the water is quite shoal, rarely exceeding four fathoms.

CHINESE MULBERRY.

The following judicious remarks on the Chinese Mulberry, are from the Albany Silk Worm.

Mr Bestor of Suffield, Connecticut, propagated last season from two young trees of the Chinese mulberry, by layers, that is bending down the branches and covering them with earth, two hundred and two young trees, fortyeight of which he sold for twelve dollars: thus from two young trees realizing twelve dollars and saving to himself one hundred and fiftyfour trees, besides the two original ones. What has been done can be done again, any other person, with the same assiduity would, probably, have the same success. But allowing only one quarter of that increase, would in three years produce 16,625 trees, which would fill over four acres, allowing 3,200 to the acre.

Let us now compare the Chinese and white mulberry, and see what advantage either gives over the other. In Mansfield, Connecticut, where they have made silk many years, and still make it from standard trees of the white mulberry, as large as apple trees, the produce of silk is calculated at from forty to sixty pounds to the acre. These trees require, at least, from ten to twenty years growth to begin to produce that quantity. An acre set out with cuttings or seedlings of the Chinese mulberry containing as above stated 3,200 trees, will yield the first year 1600 pounds of leaves, or half a pound to a tree. One hundred pounds of white mulberry leaves, as a general calculation, will produce one pound of silk; but I am informed by a gentleman, extensively engaged in cultivating and feeding silkworms on the Chinese mulberry, that eighty pounds are equal to a hundred pounds of the white mulberry leaves. In that case the 1600 pounds of leaves will yield twenty pounds of silk. The same trees which produced half a pound of leaves the first year, will produce a pound the second year, three pounds the third year, and five pounds the fourth year. The produce of the acre will then be twenty pounds of silk the first year, forty the second, sixty the third, and a hundred pounds the fourth year.

I therefore earnestly repeat the advice to every one who has any thoughts of engaging in the silk business to commence cultivating the Chinese mulberry, if it be on ever so small a scale. If it is with but one stalk, commence with that, and multiply it as fast as possible. If they can get more, do so.

It may not be amiss, however, to endeavor to explain what has caused the doubts respecting the hardiness of the Chinese mulberry and of the prejudices which some people still retain against it.

It is well known to every scientific horticulturist that plant of almost any kind, carried from a warm climate to a colder one, are not as able to

withstand the cold as those grown from the seed in the cold climate, but that this hardiness to endure the cold increases, as the plant continues to be thus cultivated for several seasons. It is well known that this effect, of becoming acclimated progresses much more slowly, if it even progresses at all, where the plant is propagated by grafting, or cutting or any kind of transfer from the wood of the parent tree, than when propagated from seed by successive generations.

The first knowledge we have of the Chinese mulberry, it was brought to this country from France, where it was obtained from the Phillippine islands, which is a tropical and consequently hot climate. They have been thus far, both in France and in this country, propagated chiefly by transfer of the wood in grafts, layers, &c. and of course incline to retain the natural tenderness of the parent stock. Their consequent liability to be winter killed, was also increased by another circumstance,— when they were first received here, they were thought of great value, and accordingly set in the richest ground and in warm and protected situations. This was one of the surest methods to kill them. Owing to their extremely rapid growth and the continuation of that growth late in the fall, the cold of winter seized them while the sprouts were tender and before the wood was formed, and they were therefore literally killed with kindness. This discouraged many people, and the idea that it would not stand the winter became somewhat general. Some, however, who were more fortunate, or who had more perseverance, found out in time, by experience, that the trees set in a dry, sandy, or gravelly soil, contained less moisture, and the wood hardened, and vegetation ceased sooner in the fall, and that these preservative effects were increased by standing in a bleak exposure. It is remarkable that many persons engaged in cultivating this tree, have independently of, and unknown to each other, come to the conclusion, viz: that rich soil and a warm and protected situation, by accelerating the growth, increasing the proportion of soft, succulent substances, and prolonging its green soft state to later in the fall, were causes of its death, by the early frosts of winter; and that a contrary course tended to its safety.

Imported Silk. — The Northampton Courier states that the Hon. G. Grenell, Jr., of Greenfield, in answer to an inquiry directed to him from Dr Stebbins of Northampton, says that the silk imported into this country during the year 1835, amounted to Sixteen Millions, Four Hundred and Ninetyseven Thousand Dollars.

Cure for Scratches.— White lead, prepared in oil for painting, well put on with a brush. On application generally produces a cure.—*Pough. Jour.*

Silk Company.—If farmers have any doubts remaining with respect to the demand for cocoons, or raw silk, they will be removed on seeing markets opening for them in all directions. The manufacturing companies already formed, will require more of the raw material that will be growed in this country for the next quarter of a century. Many of these companies are incorporated for the purpose of growing, as well as manufacturing silk, on account of the necessity which they will be under for years to come, of producing their own stock. This union of both branches of the business is not a matter of choice but of necessity. The manufacture of silk is a distinct branch of business from its culture, and it would be desirable to keep it so, were it practicable; but until farmers engage in the business with spirit and activity, manufacturers must rely on their own resources to furnish their own stock.

PROGRESS OF THE SILK CLTURE.

The Massachusetts Silk Company organized last week by the choice of the following officers.

Directors. — Joseph R. Newell, Thos. Whitmarsh, Wm. H. Montague, J. Vincent Browne, Sam'l. H. Babcock, Josiah Daniell, John Ashton, George Browne, Francis O. Watts.

Joseph R. Newell was elected President, Francis O. Watts, Clerk, and J. Vincent Browne, Treasurer.

This Company have purchased the beautiful farm in Framingham, belonging to Col. Nath. Fisk, and ar now laying it out as a Mulberry plantation, preparatory to going into the Manufacture of silk the ensuing year.

Atlantic Silk Company.

Extract of a letter from Col. Gardener of Nantucket. We shall commence manufacturing silk goods in two or three weeks. We have one invoice of India, and one of Naples silk on hand, and we are daily expecting an invoice from Smyrna, and have also sent orders for a large amount, which will arrive in the country in July or the first of August next. We have had a piece of handkerchiefs sent us from the Spitalsfields weavers, and we trust before long to have the pleasure of exhibiting it in Boston with a piece of *Nantucket*, made from precisely the same stock. In the mean time individuals have commenced setting trees on their own account. I shall put on my farm this spring about eighteen thousand trees, including about twenty-five hundred of the Morus Multicaulis. My friend, S. B. Tuck, will set about as many more. We have no doubt at all of the success of the Morus Multicaulis, but we have found it impossible to procure them at any price. As many of our white mulberries are small, our present intention is to engraft them another year.

Silk.—We were yesterday shown about eight or ten doz. skeins of beautiful sewing silk, made by Mrs. Sampson Hamilton of this borough. We understand she has made more than enough to make a silk dress. An example worthy to be imitated. We will publish from time to time such information on the subject as may be in possession.—*Meadville Courier.*

Income of the Third Year. — Some farmers decline cultivating the mulberry on account of the time that must necessarily elapse between sowing the seed and gathering the foliage in sufficient quantities to make a profitable crop of silk. That investments which yield a speedy return of profit are to be preferred to those which are longer unproductive is apparent to all; but a shrewd financier always takes into consideration the percentage his capital will give him, as well as the time it is employed. Hence if he is balancing between an investment which will give him six per cent. annually, commencing at the end of the first year and one that will give him thirty per cent. at the end of three years, and afterwards in a double, or quadruple proportion, he will ultimately decide in favor of the latter, and for the best of all reasons — it is the most advantageous.

That farmers cannot realize as speedy profit from *mulberry trees as from crops* that arrive at maturity the first year, is manifest; but whether taking a series of years together, they cannot ensure a much larger per centage on their capital invested, is a question for experience to decide. We are aware the old method of cultivating the tree, and receiving no profit from it for ten or fifteen years, was a discouraging business; but according to the plan of modern culturists, it requires no extraordinary degree of patience to await the growth of the tree. It is believed by the most judicious cultivators of the mulberry, that silk can be made on the third year's growth of the tree in sufficient quantities to pay the expense of cultivation and a fair per centage on the capital invested.

For the purpose of settling the question, we would recommend to gentlemen who are engaging in the culture of silk the trial of the following experiment; which so far as we can discover, promises a favorable result. — Sow the present season 5 lbs. of white mulberry seed. This, according to the quantity ordinarily allotted, will plant one acre in seed beds. Cultivate the plants till they are two years old, and then transplant them to the nursery. Planted at from three to four inches apart in rows two feet spaces, they will cover *from four and a half* to five acres. The third year prune the trees, and with the branches cut off, feed a family of worms, and make a crop of silk. That the trees can be successfully cultivated in this manner, no one will doubt; but the great inquiry will be, what number of worms can be sustained, and what quantity of silk will they make? In answering these questions we must rely partly upon experiments and partly upon estimates.

That the prunings and other foliage of a white mulberry tree, on its third year's growth, will furnish food sufficient for one worm, was proved by a gentleman of our acquaintance the past season. Taking this fact as the starting point, let us next ascertain what number of trees may be expected from five pounds of seed, and what quantity of silk will the same number of worms make. There are in a pound about 280,000 seeds; but as it cannot be determined what proportion of them will germinate, we always consider 100,000 trees a fair estimate. This will give 500,000 trees from 5 lbs. seed, and consequently feed as many worms. A pound of silk is estimated to require the labor of from 2500 to 3000 worms; but we will allow 4000, which being made the divisor of 500,000, will give us a quotient of 125, the number of pounds of silk produced. If we call the silk $4 a pound, which is below its value if well reeled, it will give a gross income of $500, the third year.

Now deduct *one half* for labor, and as much more as you please for failures and disappointments incident to a new project, and see if a farmer can devote a portion of his lands, and invest a portion of his surplus money to better advantage. The experiment may be tried on a smaller scale, if found to be more desirable. — *Genesee Farmer.*

Price of making Cocoons. — In our January number we had an article on the "price of making cocoons," in which we stated that a silk-grower of Mansfield was ready to contract for "making" cocoons at $1 a bushel. We supposed no person could mistake our meaning; but it seems a correspondent of the New England Farmer understood us to say the offer was to "furnish" them at that price, for in this manner he misquotes our language. Had he read the article, as originally published, he could but have seen that we alluded to the price of making on contract, having the foliage, &c. furnished, and not to furnishing the manufacturer with them from the product of his own trees. The correspondent affects to doubt the "correctness of the proposition," and "to test" it "offers $2 for 3000 bushels, [$2 a bushel we presume] to be delivered at the Farmer office any time in the present year." It is probably known to the writer that cocoons have been selling through the season at $3 a bushel, and that it is expected they will advance 25 or 30 per cent. the coming season. Under these circumstances, he can hardly expect that any silk-grower will furnish him at 50 per cent. discount; but if he has the foliage for the 3000 bushels of cocoons, the silk-grower of Mansfield will gather it and make the cocoons at the price stated. — *Silk Culturist.*

To raise potatoes in Ireland, English seed is planted; in England, Irish seed. — *American Magazine.*

(From the New England Farmer.)

SILK CULTURE.

(Concluded.)

We have seen that one ounce of seed contains 42,000 worms; M. Beauvais employed 8 ounces of seed; he ought, therefore, to have had 336,000 silk worms.

He obtained and realised 1,102 pounds, or 551 kilogr. of cocoons; it requires at the Bergeries but 360 cocoons to make a pound, he has, therefore only brought to a productive state 286,520 silk worms. He lost 4000 at the mounting, by a fault in the arrangement of the *bruyeres* (brush-wood,) ventilation having been nearly suppressed in arranging them. He lost, therefore, in the first ages, 45,480 including the eggs which were not hatched.

It results from an analysis which M. d'Arcet has communicated to me, that the air in the establishment of the Bergeries, during the fourth age, appeared to be slightly alkaline. Water which was condensed in it, by means of a balloon filled with ice, was found to be as limpid as distilled water—it was slightly alkaline; the nitrate of silver did not form a precipitation at the moment of mixture; but very soon it became endued with a pale red. At this period of the process, ventilation was very regular; the air was so little changed that carbonic acid could not be found by means of the water bath, and that the eudiometric experiments made with the air by this water bath, whether by phosphorus, or the deutoxide of nitrogen, always indicated as much nitrogen and oxygen in it, as in the air taken from out-doors and comparatively essayed; this air contained only slight traces of ammonia and carbonic acid combined.

At the period of mounting, ventilation, as I have said, was interrupted, and in part suppressed by the arrangement of the bruyeres; and at this time, the air in the establishment had ceased to be as pure. M. Henri Bourdon, who three times analyzed it, found it to be composed in the hundred for a medium term, of

Nitrogen and carbonic acid,	82,57
Oxygen,	67,43
	100,00

The atmospheric air, we know, coutains in the hundred,

Nitrogen,	79
Oxygen,	21

It will be seen that this air was already much vitiated. At this period, the water condensed by means of ice in the estabilshment, was limpid; it had neither taste nor smell; it was alkaline; it was not disturbed by the addition of nitrate of silver; but it almost immediately became colored with a deep brownish red, an abundance of which was at once precipitated, but which does not appear to have been perfectly defined.

We can imagine what would happen to worms kept constantly in an establishment not ventilated, from the following experiment which M. d'Arcet made with worms which had been bred in pure air. Twelve large silk worms, taken in the fourth age, were enclosed in a quart bottle, into which mulberry leaves had been put at the end of twentyfour hours, the air contained in this bottle had diminished in volume; it was alkaline, and contained in the hundred,

Nitrogen,	79,11
Carbonic acid,	16,50
Oxygen,	3,39
	100,00

This air was, therefore, almost completely vitiated. Of the twelve silk worms, one was dead; the others which were still alive, were drawn up, of a dingy yellowish color, almost motionless; three others died soon after upon fresh leaves; the other eight consumed a little; three made a little silk before they died, two were converted into chrysalis without spinning, and three died without spinning. and without being converted into chrysalis.

I have before stated that M. Beauvais ought to have had 336,000 worms. Out of one hundred eggs, he has, therefore, realised 85,27 cocoons; and lost 1473 silk worms and eggs not hatched.

By adding to the 286,520 worms which spun, the 4000 which died at mounting, we have 290,-520 worms, as the result of the process. The worms had eaten 16,830 pounds of leaves; the fresh leaf contains in the hundred—Dry leaf, 32; Water, 68. Each silk worm, therefore, had eaten in the whole course of his life 29 *grammes* of fresh leaves, the *gramme* is equivalent to 15,434-1000 grains Troy.

I have before spoken of pupils. M. Beauvais represents himself as a man of conviction and of progress; but this conviction and progress his ardent and disinterested zeal seeks to give weight to and extend, in a manner which indefinitely increases their influence. To attain this object, he has opened gratuitously at his establishment theoretical and practical courses of instruction, which are attended by young proprietors coming from all parts of France. This year the number of fifteen were attracted to them. Among them were found, with M. H. Bourdon, pupils of Roville, the marquis Amelot; a large proprietor in Gatinais; the son of the baron Mallet; M. Bella, son of the director of the model farm of Grignon; M. Baynard, former prefect of the Hautes-Alpes and of Maine-et-Loire, who is at the present time making considerable plantations of mulberry trees near the Bergeries. After having employed a

part of their time in attending to the smallest details of the mode of management pursued, and in assisting in them with their own hands; in studying the cultivation and treatment of mulberry troes, under the direction of a nurseryman from the South attaches to the establishment; every day during two hours, their worthy master assembles them in instructive conferences, in which are recapitulated and collated all the observations of the day; in which are discussed all the advantages which must result to the country in general, from the interesting subject of their studies, under the various points of view which their social position may give rise to. How many truly logical ideas, how much sound intelligence, how many ameliorating germs rendered fruitful by this powerful reunion of observation and of facts, ought these young and studious citizens, the legitimate hope of the agriculture of the state, to have carried with them to their homes. To describe to you, gentlemen, in a word, both their deep conviction of the advantages which they have received from their relations with M. Beauvais, and the sentiments which his own generosity has given rise to, I ought to say, that before separating, they unanimously voted to him a gold medal, as a testimonial of their own gratitude, so sensibly felt, and so worthily merited. A crowd of persons have enrolled their names to atrand the ensuing course. One of these pupils, M. Peycams, a nephew of M. Caussade, a proprietor in Gaudaloupe, has particularly attended to reeling. At the request of the principal colonists, he is going to that island to instruct women of color the reeling of the cocoons; for which purpose he carries with him a complete filature.

But it is a fact, and one which M. Beauvais acknowledges, and gives publicity to, in terms which exhibit at once his character, his gratitude, and his love of truth, that the brilliant results which he has this year obtained — to do full justice to his own intelligence, to the high order of his own mind, and to his assiduous perseverance — he owes indisputably to the arrangement for ventilation, which M. d'Arcet has already made you acquainted with, the plan and description of which, under the name which he has given to it of a *salubrious "magnanerie,"* (habitation for silk worms,) the Society of Encouragement has published in its Bulletin. After various experiments, this simple and economical arrangement has proved to him at last, says M. Beauvais himself, that he had discovered what he had been so long endeavoring to obtain, *an equal temperature and a pure air constantly renewed;* conditions which, added to a minute cleanliness, assimilate, as near as possible, the artificial mode of raising silk worms in the narrow habitations in which Europe is obliged to keep them confined to the most favorable condition in which nature may have placed them.*

The first application of the system of ventilation of M. d'Arcet to the establishment of the Bergeries, imperfect as must be an operation which the want of time only permitted to be arranged without suitable preparation, has resulted in a success which cannot fail to strike every one. God forbid that what remains for me to say should weaken the merit of the applicant and of his rights in your interest! On the contrary, M. d'Arcet has stated himself that it was M. Beauvais, who, partaking of the opinion which that *savant* had formed in travelling, of the mode or process pursued in the South, had induced him to define his own ideas on the subject, and to form a plan of a salubrious habitation. French agriculture will be pleased, therefore, I hope, to unite in the same sentiment of esteem, the *savant* and the practical man. I say French agriculture, because it does not admit of a doubt, if the important experiment which is submitted to you is to have so high an influence on the production of silk, in the central and northern parts of France, that it will much more efficaciously still contribute to the amelioration of the method of process pursued in the South. Let, therefore, those who are most cautious, let those ancient cultivators, who have so much right to entrench themselves under that prudence which we respect in them, and which is the treasure of their whole lives, at least, therefore, wish that similar attempts may be renewed and propagated. But the subject is so important, the question is so grave, that I ask of you, gentlemen, permission to enter again into some details, preceded by a short recapitulation of the conditions essential to a successful process of management, and of the means put in practice to the present day, to purify and render healthy the habitations of silk worms. If we study with care the organization of these worms, which breathe only through their stigmas, and if we analyse the gases which they expire, particularly in the last ages, we shall soon be convinced of the importance of a mild and continual circulation of air, in a room where millions of these little insects must be amassed together, and spread upon the hurdles from whence the unhealthy exhalations are evolved.

In observing, attentively, the continual labors which these small bodies are performing, as well as the effects of dilation and contraction, which are constantly taking place with these insects, particularly at the period of their moulting, it will be perceived that all their functions are performed with more or less quickness and facility, accord-

*In China, there is a wild kind, which breed in the open air upon the mulberry trees of the country, and which they have not yet been able to domesticate.

ing to the degree of heat to which they are exposed; and every one must be sensible of the danger to which sudden changes of temperature must expose them.

Great humidity, of which the least inconvenience is to produce fermentation of the litter, is fatal to the worms which are breathing the unhealthy gases; consequently, cultivators dread, particularly in the fifth age, the warm and damp winds from the South. Within the habitations, besides the external humidity, there is still developed a great quantity, which proceeds from the leaves, and from the worms themselves.

Dryness of the air, besides that it is essentially injurious to the worms as to all animals, even when it is the purest possible, suddenly dries and withers the leaves; and the worms which feel instinctively the want of a certain quantity of water in their aliment, refuse the leaf as soon as it is wilted; consequently the worms suffer, and the leaves are lost.

All cultivators know from their own experience, how important it is to fulfil the conditions of continually renewing the air, of constant equality of temperature, and of hygrometric invariableness; but from the want of means to comply with them, they are obliged to guard against the consequent inconveniences, and for this purpose they are in the habit of burning in the room aromatic plants, of boiling vinegar, into which cloves are put, of sprinkling the worms with the chloride of lime, &c. But the insufficiency and even the danger of such process may easily be conceived.

Dandolo, a skilful cultivator of Piedmont, was not long in convincing himself that these means were fatal to good management, and he very soon completely reformed the method pursued. To purify and render healthy the habitations of silk worms he caused holes to be pierced in the floor, the ceiling and the walls, for the purpose of renewing the air; he repelled fumigations, of the danger of which he was aware; and in the establishments constructed after his plans, and called *dandolieres*, his imitators, who, unfortunately are few in number, because encouragement has been wanting at Piedmont, obtain 100 to 110 pounds of cocoons instead of 50 or 60 to the ounce of seed. Here, in France, the question being brought before you, encouragement will not be wanting.

In the mean time the system of Dandolo is still defective; he established his fire-places within the habitation itself, the immediate action of the heat developed, and of the exhalations spread from the combustibles could not but be pernicious to the worms. Besides his methods are often ineffectual, particularly in heavy and stormy weather, when the circulation of the air is difficult, and when they are obliged to have recourse to fumigations of the chlorlde of lime, the application of which it is not possible always to make with the desired regularity.

It is, therefore, necessary to employ more powerful means, and which will be infallible in the application of the principle of purification and health developed by Dandolo; it is then that science truly takes possession of the question; it annihilates completely the action of external influences, transports without the habitation the source of heat, and thereby realizes simultaneously, the four conditions essential to the success of the process pursued.

In the system of M. d'Arcet the habitation of the silk worms is in the first story, the fire-place or *calorifere*, is on the lower floor, in a tight room, called an air chamber. The air passing out of this room, is conducted by tubes placed the whole length of the floor of the habitation, and is let into it by means of circular openings, of various sizes. In the ceiling is arranged a system of tubes and of openings, corresponding exactly with the one below; it is through these upper openiugs that the air, powerfully attracted by a ventilator and by draft stove *(fourneau d'appel)* fixed in the chimney itself, which receives the funnel of the calorifere, passes out, after having been introduced into the habitation, and this draft produces another in the air of the lower room, so that it establishes a continual current. It is only necessary, therefore, to establish a room, not large, conveniently situated, as to temperature and humidity. This result is easily obtained, by producing in it, with the aid of a calorifere, ice, wet cloths, and drying matters, heat, cold, humidity and dryness.

In the month of April, 1835, M. C. d'Arcet sent his plan of a salubrious habitation to M. Beauvais. The time for commencing the operations for the season was approaching; to let this period pass, would be to delay, for an entire year, the application of the system and the knowledge of its results. M. Beauvais was impatient to put in practise the work of science which his own experience ensured him the success of; in a month, he arranged a new habitation, from which, by judicious management, he has been enabled to derive every advantage; he remedied as much as possible the imperfections which must necessarily have resulted from the haste with which the arrangements were executed, and from the novelty itself of the system applied to the management of silk worms.

M. Beauvais immediately found in the important result whteh he obtained, the reward of his cares and his assiduity, and he flatters himself to have demonstrated more explicitly than it has been previously done under our climate, thanks to the system of purification of M. d'Arcet, for the application of which one attentive and careflu

operative is only necessary, that a new era may commence in the management of silk worms. *

However, gentlemen, if the important fact which has just been accomplished near the capital, seems to support the hopes which many enlightened men have entertained, it must be said, it must be repeated, for the cause of truth itself, which would repel an equivocal triumph; that whatever confidence this remarkable experiment merits, and has already obtained, it presents itself yet, as only one isolated fact, entirely recent, at present deprived of the weight which it can only obtain by a repetition of it, performed by different persons under other circumstances, and in other places, and which must thus receive the sanction of time.

The author of this experiment, without doubt, merits encouragement; the attention of those which it interests must be at once awakened, and perhaps continued; new essays appear to be desirable to the real friends of our prosperity; and it is of great importance that these essays should be continued; for that which has excited your attention, has excited that of the skilful cultivators of the South; strangers as they are to undue prepossession, and superior to prejudice. They will wait these new attempts with eagerness, the more reasonably, because they well know that whatever experiments are now making in the North, can only turn to the profit of the South, ready to seize with gratitude new methods which shall appear to them sufficiently tested; they know that the branch of industry by which great fortunes have been founded in the South, will be able, without injuring them, to create in the North similar fortunes, in gradually relieving our common country from the tribute of 43 millions which it pays at this time to foreigners, and which the cultivators of the North, in future emulous, but not rivals, of those of the South, will be able, in a quarter of a century, to share with them as brethren, with constantly increasing benefits.

From these various considerations, gentlemen, your committee of agriculture have directed me to propose to you to insert the present report in your Bulletin, and to refer it to the Commission on Medals. (Signed) SOULANGE BODIN,
Reporter.

*The price current for *grege* silk is at this moment 25 fr. the demi-kilogr. M. Beauvais sells his at 50 fr. It is of that beautiful kind called *Sina* (used in the manufacture of gauze), which Louis XVI. imported from Canton, in 1784, which has been gradually deteriorated in quality, from the negligence and avarice of its original producers; which *M. Poidebard* has, by long and assiduous exertions, regenerated in a remarkable degree, and which M. Beauvais is endeavoring to reproduce in all its primitive beauty.

WHITE AND OTHER WASHES, CHEAP PAINTS, &c.

As this is the month when the cleanly, prudent farmer should be giving his barn, stables, and other out-houses, garden and other fences, a coat of wash of some kind; and above all, as it is the period when the frugal housewife, by the aid of a coat or two of white wash, makes old things look new, and cleanses and purifies her kitchen, pantries, and cellars, we take pleasure in annexing the following recipes from which each may select such as may suit his or her taste best.—*Yan. Far*

To make a beautiful and lasting white wash.

Take one fourth peck unslaked lime, pour on it a kettle of boiling water; while the lime is slaking, add half a gallon of stale chamber-lie; when the lime is perfectly slaked dilute it with water to the proper consistence, and add to this mixture one fourth of an ounce of Prussian blue. This will give you a beautiful and lasting wash that will neither peel off, nor turn yellow, and will look nearly as well as white paint. By increasing the quantity of blue you may make either a pale or dark blue, as best suits your taste; or if you prefer it, by adding yellow or red ochre, you may impart either of these tints to your wash.

To make a cheap Paint, or white wash.

Take 2 quarts skimmed milk; 2 ounces fresh slaked lime; 5 pounds whiting. Put the lime into a stone vessel, pour upon it a sufficient quantity of milk to make a mixture resembling cream, then add the remainder of the milk. When this is done, crumble and spread the whiting on the surface of the fluid, in which it will gradually sink. It must, after all the whiting has been precipitated, be well stirred, or ground as you would other paint, when it will be fit for use. By the addition of any coloring matter you may make it suit your fancy. It should be put on with a paint brush, and when dry a second coat should be given it. The quantity above mentioned is sufficient for 27 square yards.

Incombustible wash and Stucco white.

The basis for each is lime, which must be first slaked with hot water in a small tub or piggin, and covered to keep in the steam; it then should be passed in a fluid form through a fine sieve to obtain the flour of the same. It must be put on with a painter's brush; two coats are best for outside work.

First. To make a fluid for the roof and other parts of wooden houses, to render them incombustible; and coating for brick, tile, stone-work, and rough-cast, to render them impervious to water, and give them a durable and handsome appearance.

Slake your lime as before directed, say six quarts, into which put one quart of clean rock salt for each gallon of water, to be dissolved by boiling, and skimmed clean; then add to the 5 gallons one pound of alum, half a pound of copperas, three fourths of a pound of potash, the last to be gradually added, four quarts of fine sand or hard wood ashes, say hickory. You may add any coloring matter that your taste may dictate. It should be put on with a painter's brush; it will it is said look better than paint, and be as lasting as slate; will stop the small leaks, prevent the moss from growing, and render the part painted with it incombustible.

Second. To make a brilliant stucco white wash. Take clean lumps of well burnt stone lime (oyster shell lime will do as well), slake as before directed; add one fourth pound of whiting or burnt alum pulverized, 1 lb. of sugar, 3 pints of rice flour made into a thin and very well bodied paste, 1 lb. of clean glue, dissolved by simmering over a slow fire. It is more brilliant than plaster of Paris, and will last for fifty years. It should be put on warm.

Cheap white Paint.

One pound of unslaked lime, 1 lb. Spanish whiting, 1 gallon of sweet milk, 1 gallon flax seed oil, 1 tablespoonfull of salt. Pour onth e lime sufficient water to slake it, and while the lime is slaking, pour in the oil so as to cook it thin, add the whiting and salt, then pour on the milk and superior.

Preserving an Apple Tree.—The following novel mode of preserving the life of an apple tree, was tried last season by Mr Mandell, of Barre, and the tree this year bears abundantly.

"The bark was eaten off from the body of the tree entirely around, for the space of two feet or more, as clean as if it had been scraped; he removed the uneven and jagged portions up to a uniform ring; then took young shoots, and sharpening them at both ends, inserted them at each end into the bark to act as conductors of the sap, and covered the whole over with moist and rich earth to the height of a foot or two above where the bark was eaten off; the scions took root at both ends, and acted as conductors for the sap. On that side where the sticks were placed thick, the tree was entirely restored, the other side, where they are fewer, is partially decaying."—*Barre Gaz.*

Two centuries after the worship of the gods of mythology was questioned at Athens, Cicero first ventured at Rome, in a philosophic way, to break up their altars in the "Eternal City."

Receipt for making cold Soap.—The leach tub or hogshead must be covered at the bottom with straw and sticks — then put in a bushel of ashes, then two or three quarts of unslacked lime, upon which you must throw two quarts of boiling water to excite fermentation and slack the lime; put in another bushel of ashes and as much more lime and water, and continue to do so until your vessel is full; put in hot water till you can draw off the lye, after which the heat of the water is not of much consequence. You must have, at least, two thirds of a bushel of lime to a hogshead, if you wish your soap to be made quick; one hogshead of ashes will make two barrels of soap. When you draw off your lye you must keep your first two pailfuls by themselves, and the next two in another vessel, and the third two in another vessel still: then weigh 29 pounds of clear, strained grease, or of scraps, without straining, 32 pounds, put into a kettle with three pounds of rosin; then pour over it one pailful of lye from the first drawn vessel, and one from the second drawn vessel; put it over the fire, and let it boil twenty minutes — be particular to add no lye over the fire, but swing off the crane if it is in danger of boiling over; put it into your barrel, and add one pailful of lye from the third drawn vessel, and give it a thorough stirring; then weigh your grease for another barrel, and take the lye remaining in the vessels, in the same manner as for the first barrel; then draw off your weak lye, and fill up the vessels as fast as possible, remembering to put half to each barrel, that they may be equally strong; if your leach run through fast, you may have your barrels full in an hour, and so hard that you can hardly stir them. You must stir it after you begin to put in your lye, till your barrel is full. Fourteen quarts of melted grease is the quantity for a barrel.

[Many families in this town make their soap according to the foregoing with perfect success.] —*Hamp. Gaz.*

Beet Sugar.—A beautiful specimen of sugar manufactured in France from the beet, was exhibited at the Philadelphia Exchange recently.—The lot was purchased in Havre at 9 1-2 cents a pound, and was brought out by a number of gentlemen of Philadelphia, who sent an agent to procure all the necessary information relative to the process of manufacturing sugar from beet in France, where it is so extensively carried on as to excite great discontent among the planters of the French colonies.

A great man once remarked, "I have had long experience, and I never knew a rogue happy."

Silk.—Of the prodigious value of foreign silk goods imported into the United States, the people of this country generally seem not to have been fully aware. The aggregate amount of this trade for the year 1834, has been estimated at about twelve millions of dollars — which included all the imports from abroad, both from Europe and India. But we have now before us an official document, for which we are indebted to our attentive representative in Congress, Mr Reed, which discloses the astonishing fact, that during the year 1835, there were imported into the United States, from *France alone*, silks to the value of $12,129,640 — being nearly double the amount of importations for any preceding year, and upwards of three times that of the year 1830! The value of imported silks from England, Germany, Italy, Turkey, China, and other countries, during the last year, we have not at present the means of ascertaining. If this be estimated at only one half the above sum, we then have an aggregate of upwards of *eighteen millions* of dollars!

Is it not high time that the American people should realize the important fact, that the enormous amount of money thus annually drawn from their purses, is paid for articles which may be as abundantly produced, and as successfully fabricated, to say the least, in this, as in any other nation on the face of the globe? Has not the time arrived, when legislators, political economists, and patriotic citizens of every class should look deeply into this subject, so obviously momentous? It strikes us that there is no branch of domestic industry, which, at this moment, so imperiously demands not only the attention, but the fostering aid and generous patronage of government.

Individuals, scattered here and there — and small associations, with limited means — may toil through a course of years, and by slow and gradual advances finally bring to perfection the culture and manufacture of this precious material. Private enterprise and ingenuity may also facilitate the progress of these undertakings; and capitalists may engage therein to a certain extent. But the paramount protection and encouragement of the national and state authorities, even if but partially extended, will accomplish the object almost instantaneously. In view of the immense results to be reasonably anticipated from the introduction and establishment of the silk manufacture — promising such advantageous changes in our foreign and domestic relations — it becomes evidently the duty of those who are entrusted with the management of our public interests to provide liberally for its speedy promotion.

From the document before mentioned we learn one remarkable fact relative to the silk trade between France and the United States, which shows that, after all, we have been no great gainers, as a nation, by the payment — or the agreement to pay — the indemnity of five millions. The amendments made in 1832, to the tariff act of 1828, in regard to the duties on imported silks and wines from French ports, must have served as a stimulus, if indeed they were not intended as a bribe to the government of France, in the way of inducing a seeming act of justice on their part. It appears that we have actually more than defrayed the whole amount out of our own pockets, by means of the reduced duties on silks alone, within the last three years. France, or those engaged in the silk trade with that country, saved, in consequence of the diminished impost on silks, in 1833, $1,061,579; in 1834, $1,582,063; and in 1835, $2,627,184: in all, no less than $5,270,826. Upon wines, the saving to France from the same cause, amounted to $695,031. So that, for the boasted five millions indemnity, we have granted far more than an equivalent — the French trade having been benefitted to the amount of nearly six millions — of which sum our treasury has been deprived, through the operations of the act of 1832 — an act authorising the reduction of our own revenue for the exclusive benefit of France. Well might such a measure tempt the rulers of that nation to the discharge of a portion of our claims — a portion covered entirely by a remission of the customary duties on a single article of commerce!—*Nan. Inq.*

Silk Company.—It is with much pleasure that we state to the friends of the cultivation of silk, that the Chester county Silk Company is thoroughly organized, and proceeding with great dilligence in the object of their corporation. From the zeal and intelligence of the President and managers, it will commence under the best auspices.

The company have purchased 12 acres of the Matlack estates within the limits of the borough Two acres are already ploughed, and one thousand trees of several years growth will be planted in a few days. The company have also sent to Baltimore for a quantity of the Chinese mulberry. — *West Chester Record.*

Cure for the Big Head.—Big Head is essentially a scrofulous disease. Take an ounce of corrosive sublimate, and dissolve it in one pint of alcohol, or one quart of fourth proof brandy. Wash the part affected thrice, or oftener in a day, until it is well blistered. Cure up the wound with elder bark and lard salve, or any other application. A few blisterings will effect a cure.

Railroad from New York to Philadelphia. It is rumored that the Joint Companies have determined to make their branch Railroad from New Brunswick through Trenton.

[From the Genesee Farmer.]

PRUNING FOREST AND FRUIT TREES.

The operation of pruning, like every other business of the farm, should be the result of system, and conducted with a definite and well understood object, a course very different from the haphazard manner in which it is too frequently performed. The desired shape and form of the tree — the kind of tree to be pruned, whether fruit or forest tree, should be considered, and every branch should be cut off with reference to these things. It is evident at sight, that a tree to produce fruit in perfection, should be subjected to a very different treatment from one intended for forest growth, or timber alone. In the first a large open top or crown is required — in the last, the great effort should be to keep the top from spreading, and the leading stem upright and free.

In order to keep a tree perfectly under command, and the direction of its branches under control, pruning should be commenced when the tree is small, and continued yearly, or as often as the operation is required. Yet in riding about the country, the stunted, scrubby trees, and inferior fruit, that are so frequently presented, proves that this important business of the farm is mostly overlooked, or very imperfectly attended to.— Fruit trees should be so pruned as to bring every part as much into the sun and air as possible. Some kinds, such as the apple, produce fruit in all parts of the top, and if that is left thick and compressed, the apples in the interior being excluded from light and air will be small, and of a very inferior quality. Care should, therefore, be taken to leave such branches as have a proper inclination and spread, so as to afford the greatest possible exposed surface to the sun.

The training of two upright stems, as we frequently witness in fruit orchards, should from the first be carefully avoided, and where they have been permitted to exist, no time should be lost in removing one of them from the tree. When young, such a stem may be cut off without injury, but when they have become large they cause a large wound; still it is better to run the risk of this, than to have them, when heavily laden with fruit, split down, as they most assuredly will, and thus destroy the tree. Peach and plum trees are peculiarly liable to this result, nor indeed are any trees entirely exempt. The horizontal branches are so firmly supported by the intertwining of their fibres with those of the main stem, that they rarely fail, while divided upright stems never firmly unite, and are therefore always in danger. In addition to the difficulty of giving a proper shape to trees when pruning has been long neglected, another serious evil must be encountered in the decayed places so apt to occur where large branches are cut off, in which worms and insects find a harbor, and where blue birds and wood peckers not unfrequently make a lodgment, and thus perpetuate the mischief. To prevent the evil, most of our respectable farmers and orchardists make a practice of covering such places when the wounds are first made, with some preparation which will exclude air and moisture, such as the wax used for grafting — with paint laid on with a brush — with tar thickened with brick dust — or, what in the situation of some is better than any of these, with tar hardened by use and exposure, and taken from the axles of wagons, carts &c. Any of these may be useful, and the more so in proportion to their durability, as such covering preserves the dry wood from decomposition, and by the exclusion of air, somewhat assists the formation of new wood and bark.

As to the proper time of pruning, various, and in effect, contradictory opinions have been advanced, almost every season of the year having been alternately proposed. Mr McMahon, in his American Gardener, says, "as early in this month (March) as possible, finish pruning your cherries and plums — also before the end thereof, your apple and pear trees. Peaches, nectarines, apricots, almonds, quinces, &c. should also be pruned early in the month, if not done before. The pruning of all kinds of fruit trees should be finished before the buds begin to swell or push."

Judge Buel's directions for pruning are: "Begin to prune when the tree is young; cut close and smooth to the bole or limb; cut, when small, all the branches which will require to be removed at a more advanced period of growth; do not trim to excess; do not prune when the tree bleeds; and *prune in the summer.*" To justify the innovation of summer pruning, he refers to Pontey and Sang, foreign writers of merit, the first of whom says: "As a general rule, summer is preferable to winter pruning" — and the latter of whom suspends pruning "from the beginning of February to the middle of July, but carries it on during every other season of the year." The time recommended by Judge Buel for summer pruning, "is between the first and second growth, late in June or early in July." The reasons he assigns for summer pruning are, "1st. It causes no loss of sap; 2d. The wounds are readily healed by the aid of the already descending elaborated sap; and 3d. That shoots seldom grow from the edges of wounds made in summer pruning."

The Genesee Farmer, vol. 3, page 11, says:— "May is the proper month for pruning in this latitude."

David Thomas, one of the best authorities, says —"In regard to the season for trimming, I am rather partial to the winter, or indeed to any time when the sap does not flow. The stump being

comparatively dry, especially if we defer the coating for a few days, I have believed it in a better condition to receive the paint, than when the buds are just opening into leaf. The argument that the new wood in summer pruning immediately begins to cover up the wound, I think possesses but little weight."

Mr Kenrick, in the New American Orchardist, says—"The most suitable time for pruning is that interval between the time the frost is out of the ground in the spring, and the opening of the leaf."

The result of these conflicting opinions in our mind has been, not that pruning was not useful and indispensable, but that it makes but little difference at what season of the year the operation is performed, with the exception, perhaps, of a month or two in the spring, while the sap is ascending most rapidly, and in consequence the tree is most liable to suffer injury from bleeding. If, as Judge Buel states, one of the results of summer pruning is to prevent the formation of sprouts or shoots from the wound, a great point has been gained; but we do not recollect any experiments that go to sustain this opinion, agreeable as it certainly is to the correct theory of vegetation. It is to be wished that farmers and orchardists would, by fair and thorough experiment, settle the question of pruning, and by publishing the results, enlighten the great body of their brethren on this topic. Till this is done, let farmers prune their orchards when most convenient, (with the exception made above,) and a great increase of fruit, both in quality and quantity, will, we are confident, be the result. W. G.

Grafting Wax.—We would advise our farming friends to prepare, in the course of this month, when stormy days prevent work abroad, a quantity of grafting wax; as it is sometimes inconvenient to allow time when wanted, and the husbandry of time is one of the secrets of success in farming. The following proportions of the usual materials have been recommended as good, viz: two and a half pounds of rosin, one pound of beeswax, and one pound of tallow; or one pound rosin, three pounds beeswax, and two pounds tallow; but the recipe we use, and which we know to be good, is as follows,—half a pound of tallow, one pound of beeswax, and two pounds of rosin,—the whole melted together, and then worked in water like shoemaker's wax into rolls for use. Where the grafting is to be performed in the nursery, or on small trees or branches, the most convenient mode of applying the wax in by having it on strips of muslin of a width proportioned to the size of the tree, from one to three inches. These strips of muslin are prepared by taking cotton cloth, cutting it into strips and dipping them into the wax when melted. When the branches are large, it is best to apply the wax directly to the cut limb, and when of a proper consistence and temperature, with the hands kept slightly greased, the use of this composition is perfectly easy and effectual. If you make a little more than you use this spring, it will not be lost; we have some two years old, which retains all its good qualities.—*Genesee Farmer.*

Important Invention.—Mr William Kean, of Haverstraw, has, in conjunction with Mr Thaddeus Selleck, obtained letters patent for a machine for cutting screws, which probably excels anything of the kind now in use in Europe or America. The principle of the machine consists in circular dies, which have a motion towards each other, while, at the same time, they make upwards of 500 revolutions a minute. These dies receive the screws at the top of a cast iron pot in which they are secured, and when it obtains its proper thread, it is thrown off by means of an inner spindle, and another instantly takes its place, the dies preserving their usual velocity, without changing their rotary motion. The saving of screws is another important consideration in favor of these machines, as it is difficult to spoil one upon them. Their construction is simple, and we understand that one, containing four sets of dies, and upon which a boy can turn off thirty gross per day, can be built at a cost not exceeding $150. They are now in operation at Selleck & Kean's Screw Factory at Samsondale, in this town.

The above article is copied from a late number of the North River Times, published at Haverstraw, N. Y. The machine therein spoken of, will, undoubtedly, perform all that is said of it, but as to its "excelling anything of the kind in Europe or America," that must be a great mistake. A machine has recently been invented by C. Read & Co. of Worcester, which will cut 30 gross of screws per day, with *one pair of dies;* and one boy can tend from two to four machines, according to the length of the screw. They have several of the above now in operation at their manufactory. We understand they contemplate extending their works, being unable, at present, to meet the demand for their screws.

Corn Rolls.—Take a quart of meal, a spoonful of lard, and two spoonfuls of yeast; mix with warm water until the dough is quite soft. Set it in a warm place at night to rise, and bake it in a pan or in cakes in an oven for breakfast. This bread will bake very well in a stove.

CULTURE OF SILK.

Extract of a letter from Dr Thomas White, of Mount Pleasant, to a citizen of Steubenville, (Ohio,) dated

MOUNT PLEASANT, Dec. 13, 1835.

Dear Sir,—Yours came duly to hand; and in reply, I am happy to inform you that I have succeeded very well; and am fully convinced that the culture and manufacture of silk, will before long, become one of the most important pursuits that have ever claimed the attention of our citizens. In my view there are three reasons why it should become so.

1st. It must, and will most inevitably become a great source of wealth to all who turn their attention to it, especially to the farming part of the community, if they can be encouraged to engage in it. To them it will be attended with but little expense to raise the cocoons; a female of an ordinary constitution will be able to tend from 30 to 40,000 worms, which if well fed and properly taken care of, will yield from 10 to 15 bushels of cocoons, for which we will give them from $4 to $4,50 and $5 per bushel, according to quality; or manufacture them into goods agreeably to order. Good cocoons will yield one pound of reeled silk per bushel; each pound will make 12 square yards of good substantial goods, worth from $1 to 1,50 per yard. Thus 30,000 worms will produce ten pounds of silk, or 120 yards of goods; and supposing it takes two thirds to pay for the manufacturer, it will leave the producer forty yards of goods; and counting the labor at one dollar per week (which will be the time employed), will reduce the price of the silk goods to 12 1-2 cents per yard, or $1,50 per pound.

Now, I would ask you, and every farmer in our country, by what means can our females clothe themselves cheaper than by feeding silk worms? I know none. It is only the business of five weeks for a female to provide herself with forty square yards of goods, worth more than one hundred and twenty yards of the best cotton goods she can find in the market — these are no visionary dreams; but practical facts founded upon experience. This season I raised enough for about three hundred yards of silk, which did not cost me more than 12 1-2 cents per yard to raise the cocoons, counting my labor of one hired female and my daughter, each at a dollar a week. It is the tedious process of manufacturing silk, that will, for a time, make it expensive: but this expense falls on the manufacturer, not on the farmer, or silk grower. As it respects the food for the worms, I am unable to see any great superiority that the Italian leaf has over our native leaf. I am inclined to believe that the principal advantage the Italian has over the native is, that these can be brought into quicker use, as they are much more thrifty in their growth than our native trees. I fed mine this season principally from the native tree, and expect to feed as many as one million next season from the same source; my grove of Italian trees being too young to yield much food. Our native tree of the middle size will produce food enough for 3000 worms, or a pound of silk per tree; each tree that a farmer has is worth more to him than two sheep.

At a sale of lands in Northampton last week, several lots of meadow land were sold at $114 *a* 134 for meadow plough land, and $78 1-2 *a* 104 for grass land. This is said to be the highest price ever given for meadow land in Northampton.

SILK ACT.

The following act was passed at the late session of the Legislature of this State.

"*Be it enacted, &c.* as follows:—Section 1. There shall be allowed and paid out of the treasury of the Commonwealth for every ten pounds weight of cocoons of silk, the produce of silk worms raised within this Commonwealth, the sum of one dollar, and in the same proportion for any larger quantity of cocoons to be paid to the owner of such worms, or his legal representatives.

Section 2. There shall be allowed and paid out of the treasury of the Commonwealth, to every person who shall reel or cause to be reeled, and to every person who shall throw or cause to be thrown in this Commonwealth, from cocoons produced from silk worms raised in this Commonwealth, a merchantable silk, capable of being manufactured into the various silk fabrics, or to the legal representatives of such person, one dollar for every pound of silk so reeled and thrown, and fifty cents for every pound of silk, reeled without being thrown.

Section 3. When satisfactory evidence by the oath of the party or otherwise, shall be exhibited to the selectmen of any town in this Commonwealth, that any person, being an inhabitant of such town, is entitled to claim the bounty or bounties provided for in the first and second sections of this act, they shall give a certificate thereof in writing under their hands, stating the quantity of cocoons produced, or of silk reeled or thrown conformably to the provisions of said sections, and that such claimant is entitled to the bounty or bounties therein allowed, and when such certificate shall have been filed in the office of the Secretary of the Commonwealth, the Governor, with the advice of the Council, is hereby authorized to draw his warrant on the treasurer therefor.

Section 4. If any person shall claim a bounty more than once for the same cocoons, or silk so reeled or thrown, or obtain any bounty under this act, through fraud or deception, such person shall

forfeit to the use of the Commonwealth, a sum not more than one hundred dollars, in addition to the amount of any bounty he may have received, to be recovered by indictment in any court proper to try the same.

Section 5. This act shall take effect in thirty days from the time of passing the same, and continue in force during the term of seven years from the time of its going into operation, and an act entitled 'An Act to encourage the reeling and throwing of Silk,' passed the seventh day of April in the year one thousand eight hundred and thirtyfive be, and the same hereby is, repealed, but nothing herein contained shall affect the right of any person entitled to any premium under the said act.

Section 6. The provisions of this act shall not apply to bodies politic and corporate."

Approved by the Governor, 11th April, 1836.

GRAFTING.

A great number of different modes of grafting are practised, and minute directions are given in books on gardening for performing the work. The young beginner is generally more bewildered than instructed by the multiplicity of these directions, unless he understands the *rationale*. By reducing the operation in all its modifications to its first principles, it will become greatly simplified, and the necessary particulars for success at once understood.

In order to cause an adhesion between the graft and stock, it is requisite, first, that the sap which flows upwards through the wood, should be able to pass uninterrupted at the place of their junction. *Hence the parts of both must be cut so as to be placed in close contact.* Secondly, it is necessary that the juices, in returning through the liber, (or inner portion of the bark,) should pass uninterrupted from the graft to the stock. *Hence these parts also must be placed exactly in contact.*— Thirdly, it is necessary that the newly formed woody fibres which descend from the buds of the graft, and which serve to connect the two parts together, should pass freely from one part to the other; and also that the *cambium*, or soft substance between the bark and the wood, which serves as food for these young descending fibres, should be continued at this point of junction. *Hence the line of separation between the bark and the wood, should, both in stock and graft, be accurately adjusted.* On the accuracy with which these three parts of the operation are performed, the success mainly depends. And if these are attended to, it is immaterial how great a variety of modes are adopted. The most inexperienced and unskilful hand, if care is taken in these particulars, could scarcely fail.

Although any mode of grafting would succeed if the above precautions were observed, yet convenience generally points out some particular one, adapted to the circumstances of the case. The most expeditious method of performing the operation when small stocks are to be grafted, is by *whip grafting*. This is the mode generally adopted in nurseries. It is performed thus. The stock and the graft are both cut off obliquely, or sloping, so as to leave a cut surface of about an inch in length. The degree of slope should be the same in both, as nearly as the operator can guess. If the cut is made by a single stroke of a sharp knife, the parts may be brought together more closely. Next make a slit in the middle of the cut face of the stock, downwards, about half an inch, and a corresponding one in the graft, upwards. Now by pressing them together, the tongue and slit will mutually lock together.— Then, taking care not to displace them, tie them closely together with bass matting, corn husk, or other soft ligature, apply the plaster, and the work is done. When the graft begins to grow, remove this ligature to prevent its cutting in. Where this mode of grafting is adopted, it is desirable that the stock and the graft be of nearly equal size.

But where the stock is much larger than the graft, *cleft grafting* is most convenient. This is done by first cutting off the stock horizontally with a large knife or saw, and a cleft is then split downwards in it an inch or two in length. The graft is then cut off on both sides in the form of a wedge, of such a shape as to fit as nearly as possible this cleft. The cleft is then kept open by a knife or wedge placed in the opposite side, and the graft, prepared as above, carefully adjusted in it, and then the wedge is withdrawn. The plaster is then applied and the operation is complete. This mode has an advantage over the former in not needing a ligature, the pressure of the jaws of the slit being sufficient to hold the graft to its place. It may be observed, that as the cleft is made lengthwise with the wood, the sap in passing from the stock to the graft flows *laterally* from its vessels, which it will do with nearly the same facility as from the ends.

As a sharp knife for cutting the joining surfaces is absolutely necessary, it is generally most convenient to employ two knives, — one for doing the chief work and in shaping the wood; and the other, exceedingly sharp, merely for paring the surfaces for contact.

Where standard trees have been headed down for new tops, the grafts should be set on the thriftiest shoots, and as near the body of the tree as these can be found; and strict care should be taken to cut away all overshadowing branches in their immediate vicinity. As the grafts increase in size, the old top should be gradually and finally removed.—*Genesee Farmer.*

BRIGHTON MARKET,—Monday, May 23, 1836.

Reported for the Daily Advertiser & Patriot.

At market, 198 Beef Cattle, 18 Cows and Calves, 75 Sheep, and 360 Swine. 48 Beef Cattle unsold. Also 43 left within a few miles of the market.

Prices. Beef Cattle—Last week's prices for a like quality were well supported. We noticed a few extra and very fine taken at 51s; first quality at 46s a 49s6d; second quality 41s3d a 44s3d; third quality 36s a 39s.

Cows and Calves—Sales at $21, 24, 32, 35, 40 and 43.

Sheep—No sales effected at the close of the market.

Swine—Prices have declined a little; a very few purchasers to peddle. We quote selected lots 8 for Sows and 9 for Barrows; two lots Barrows, not selected, 8 and 8 1-2. At retail 9 and 10.

Horses—We noticed sales as follows: $50, 75, 125, 150, 155 and 178.

FRENCH SUGAR BEET and MULBERRY SEED.

WM. PRINCE & SONS, Flushing, Long Island, have imported a few hundred pounds of the yellow and white Sugar Beet Seed, which they supply at $1 per lb. This vegetable bids fair to become an object of extensive culture throughout our country for the manufacture of sugar.

Also, 200 lbs. genuine white Italian Mulberry Seed, crop 1835, an article so rare at the present moment, as scarcely to be obtainable elsewhere; and it is with pleasure we announce to our correspondents that they will not be disappointed when they apply to us for this rare article.

Chinese Mulberry Trees and Cuttings by 100 and 1000—Apply by mail direct to us.

650 bushels Whitefield Beans of a very prolific variety and of excellent quality by Barrel or Tierce.

May 25. 2t

60 ACRES

Of the best land in Roxbury, for sale, situated on Brush Hill Turnpike, about 4 miles from the city, near Grove Hall, together with all the buildings thereon, comprising a convenient dwelling house, 2 barns, one of which has a cellar, and is capable of holding 100 tons of hay, with an inexhaustible well of soft water contiguous—a mill house—corn barn, sheds, &c.—large, valuable orchards of inoculated fruit trees of all kinds,—a nursery of young trees—gooseberries, currants, &c. The land is well adapted to the growth of the Mulberry and is accessible by two roads. For further particulars enquire of Charles McIntire, No. 5, Exchange street, Boston, or of the subscriber on the premises.

THOS. H. DARLING.

Roxbury, May 23d, 1836.

FRENCH SUGAR BEET.

A valuable root for the table when young, and for Cattle when fully grown; very productive. 2 to 2 1-2 lbs. will seed an acre. For sale at the Seed Store, 51 and 52, North Market street. may 25.

WANTED,

A man thoroughly qualified to take the management and work on a small Farm. A married man will be preferred if the wife can undertake the cooking and washing of a small family. The best of references will be required to such persons with whom they have lived, as to capabilities and character. Letters addressed post paid to box 265 New Haven, or application to the Agricultural Warehouse, will be attended to. May 25.

SILK WORMS EGGS.

Just received at the New England Seed Store, a few thousands of Silk Worms Eggs of the different varieties White, 2 crops a year, Black and Mammoth, in papers, from 25 cts. to 2 00 per paper. May 25.

PHINNEY CORN.

For sale, a few bushels of this superior Early Corn, recommended in the current volume of the New England Farmer, Capt. Daniel Chandler. Price $3 per bushel. May 18.

CARROT SEED.

For sale at the New England Seed Store, 250 lbs. very fine Long Orange Carrot Seed. Every farmer knows the value of carrots as fodder for horses and cattle. It is calculated that one bushel of them, is fully equal to one bushel of oats. They produce on an average 500 bushels to the acre. The seed may be sown to the 20th of June. May 18.

MORUS MULTICAULIS SEED.

Just received fresh from Canton, per the Neponset, a quantity of Genuine Chinese Mulberry Seed. This seed is undoubtedly of the growth of 1835. It was thoroughly tested in Canton by the gentleman who imported it, and there is no doubt of the genuineness, or the quality of the seed, and its vitality. One ounce of seed will give about 5000 trees. For sale at Barrett's New England Seed Store, Nos. 51 and 52 North Market street, Boston. May 11.

NATIVE FOREST TREES.

The subscriber will furnish the following kinds of Native Forest Trees from the vicinity of Bangor, Maine, and ship them carefully, according to orders, viz.: Silver Firs, (from 2 to 3 feet high); Elms, (from 5 to 25 feet); Rock Maples, (from 5 to 25 feet); Mountain Ash, (from 5 to 25 feet); Spruce, Sumachs, Pines, and Cedars, Red Cherry, Sugar Plums, and Junipers. Also Seed of the above trees furnished in their season. Any orders addressed to the subscriber. Seedsman at Bangor, or left at Geo. C. Barrett's New England Seed Store, Boston, will meet with prompt attention.

Bangor, May 2, 1836. WM. B. HARLOW.

WINSHIPS' ESTABLISHMENT.

All orders forwarded by mail will be executed with promptness, or plants may be selected by persons visiting the Nurseries.

Just received from Europe, a large quantity of productions, among them, new and superior Gooseberry Trees, from Scotland, with specimens of fruit preserved in alcohol.

SILVER LEAF ABELE TREES, a suitable, and very ornamental for islands, sea coasts, or public grounds, at reasonable rates, by the hundred or thousand; remarkable for its beauty and quick and vigorous growth.

Brighton, April 13.

FARM FOR SALE.

For sale a Farm in Bedford, County of Middlesex, 17 miles from Boston and 10 from Lowell, containing 104 acres including about 15 acres covered with a valuable growth of wood which has been preserved with great care for the last 20 years, the garden contains about 3 acres under the highest cultivation and is furnished with a great variety of flowers and shrubs which have been collected at much labor and expence; attached to the garden is a Green House filled with thrifty bearing Grape Vines, and choice and valuable plants which will be sold or not as the purchaser may choose. The Farm is under good cultivation and together with the Garden is stocked with the choicest Fruits, such as Apples, Pears, Peaches, Quinces, Plums, Strawberries of various kinds, Raspberries, Gooseberries, &c &c., which the present owner has spared no expence in obtaining. The Farm is bounded on the west by Concord River, which is well supplied with fish, and the country around abounds with game, making it a desirable retreat to the gentleman who is fond of fishing or shooting.

Possession will be given on the 1st April next—for terms, which will be liberal, apply to the subscriber in Boston or at the Farm. JAMES VILA.

BOUND VOLUMES OF THE SILK MANUAL.

For sale at the Agricultural Warehouse and New England Seed store, the first volume of the Silk Manual and Practical Farmer, neatly bound. Price 62½ cents.

The book contains 192 pages, and a great amount of valuable information on the subject of Silk Culture. It is decidedly the cheapest book, extant, that treats upon that subject May 4.

SPLENDID DAHLIA ROOTS.

Just received from the Lancaster Gardens, a fine assortment of splendid Dahlia Roots. For sale at the New England Seed Store.

Seeds for 1836.

FOR sale a the Seed Store connected with the N. E. Farmer Office

200 bushels finest Early Peas;
200 " Large Marrowfat do;
50 " Dwarf Blue Imperial do.;
50 " other varieties;
100 " Best Garden Beans;
" Dwarf and Pole, Early and Late, do;
500 lbs. superior Long Blood Beet Seed;
100 " Early Turnip " " "
300 " Cabbage Seed, 14 different kinds;
250 " Fine Long Orange Carrot;
50 " Early Horn, do.;
200 " Common Cucumber;
150 " Long Green, do.;
100 " Early and Head Lettuces;
50 " Pure White Portugal Onion;
500 " Silver Skin "
1000 " Large Deep Red, "
200 " Large Dutch Parsnip;
150 " Early Scarlet Short Top Radish;
100 " Long Salmon;
50 " Turnip Radishes;
50 " Spinach;
100 " Early Scollop Squash;
100 " " Long "
100 " Long Winter, do;
25 " Salsafy;
100 " Early White Dutch Turnip;
500 " English
200 " Ruta Baga,
200 " Mangel Wurtzel *for Cattle.*

Also—Cauliflower; Broccoli; Celery; Cress; Egg Plants Leek; Endive; Musk and Water Melons; Martynea; Pepper; Parsley and Tomato Seeds by the lb. or oz. *Herb Seeds*, of all kinds.

50,000 Papers in 200 to 300 splendid kinds of *Annual, Biennial* and *Perennial* FLOWER SEEDS.

GRASS SEEDS, *Wholesale & Retail.*

The above comprises in part the stock of seeds raised expressly for the establishment, and the quality and goodness will be *warranted* superior to any ever offered heretofore.

Boxes of Garden Seeds for the country trade, neatly papered up, with directions on each paper, for sale at a large discount from Market prices.

FRUIT & ORNAMENTAL TREES, &c. will be supplied, and orders are solicited.

GEO. C. BARRETT, *Agricultural Warehouse.*

SILK COCOONS.

The highest market prices will be paid for any quantity of Silk Cocoons. Apply at the New England Seed Store, Nos. 51 and 52, North Market street.

May 25. tf

Subscriptions and payments to the Silk Manual will be received by the following named

AGENTS.

New York—G C. THORBURN, 11 John-street.
Albany—WM. THORBURN, 347 Market-street.
Philadelphia—D. & C. LANDRETH, 85 Chesnut-street.
Baltimore—Publisher of American Farmer.
Cincinnati—S. C. PARKHURST, 23 Lower Market-street.
Flushing, N. Y.—WM. PRINCE & SONS, Prop. Lin. Bot. Gar.
Middlebury, Vt.—WIGHT CHAPMAN, Merchant.
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St. Louis—GEO. HOLTON, and WILLIS & STEVENS.

PRINTED BY TUTTLE, WEEKS & DENNETT,
School Street.

PRICES OF COUNTRY PRODUCE.

CORRECTED WITH GREAT CARE, WEEKLY.

		FROM	TO
APPLES, Russetts and Baldwins.	barrel	1 50	2 25
BEANS, white,	bushel	2 00	2 50
BEEF, mess.	barrel	12 75	13 00
Cargo, No. 1.	"	10 00	10 37
prime,	"	8 00	8 50
BEESWAX, (American)	pound	27	29
BUTTER store, No. 1	"	20	22
CHEESE, new milk,	"	10	12
FEATHERS, northern, geese,	"	55	60
southern, geese,	"	50	58
FLAX, American,	"	9	10
FISH, Cod,	quintal	3 12	3 37
FLOUR, Genesee, cash	barrel	6 62	7 00
Baltimore, Howard street,	"	7 12	7 26
Baltimore, wharf,	"	7 62	7 75
Alexandria,	"	7 00	
GRAIN, Corn, northern yellow none.	bushel	92	94
southern flat yellow	"	84	86
white,	"	81	83
Rye, northern,	"	95	98
Barley,	"	90	1 00
Oats, northern, (prime)	"	56	67
HAY, best English, per ton of 2000 lbs		25 00	30 00
eastern screwed,	"	25 00	27 00
hard pressed,	"	24 00	27 00
HONEY,	gallon		
HOPS, 1st quality	pound	13	14
2d quality	"	11	12
LARD, Boston, 1st sort,	"	16	16
southern, 1st sort,	"	16	16
LEATHER, slaughter, sole,	"	19	20
do. upper,	"	12	14
dry hide, sole,	"	19	21
do. upper,	"	18	20
Philadelphia, sole.	"	27	29
Baltimore, sole,	"	25	27
LIME, best sort,	cask	1 14	1 17
PLASTER PARIS, per ton of 2200 lbs.		2 50	3 00
PORK, Mass. inspect. extra clear,	barrel	25 50	26 50
Navy, mess.	"		
bone, middlings, scarce.	"		
SEEDS, Herd's Grass,	bushel	2 75	3 00
Red Top,	"	50	60
Red Clover, northern	pound	12	13
SILK COCOONS, (American)	bushel	3 00	9 00
TALLOW, tried,	cwt.	8 50	9 00
WOOL, prime, or Saxony Fleeces,	pound	65	75
American, full blood, washed,	"	55	65
do. 3-4ths do.	"	55	58
do. 1-2 do.	"		50
do. 1-4 and common	"	40	45
Native washed	"	38	60
Northern pulled. Pulled superfine,	"	58	60
Northern pulled. 1st Lambs,	"	50	53
Northern pulled. 2d do.	"	40	41
Northern pulled. 3d do,	"	30	35
Northern pulled. 1st Spinning,	"	48	50
Southern pulled wool is generally 5 cts. less per lb.			

PROVISION MARKET.

RETAIL PRICES.

HAMS, northern,	pound	14	16
southern, and western,	"	13	13
PORK, whole hogs,	"	10	
POULTRY,	"	12	15
BUTTER, (tub)	"	20	25
lump	"	22	27
EGGS,	dozen	15	16
POTATOES,	bushel	45	50
CIDER,	barrel	2 50	2 75

ORDERS FOR PRINTING RECEIVED BY THE PUBLISHER.